

SAWA3005 Test Listing.ST25  
SEQUENCE LISTING

<110> Sawadaishi, Kazuyuki

<120> Recombinant Antibody Recognizing Dioxin and Gene Encoding Said Antibody

<130> SAWA3005/ESS

<140> 10/550,951

<141> 2005-09-28

<150> PCT/JP2004/004355

<151> 2004-03-26

<150> JP 2003-091663

<151> 2003-03-28

<160> 67

<170> PatentIn version 3.3

<210> 1

<211> 342

<212> DNA

<213> Unknown

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<223> DNA encoding polypeptide of H-chain variable region of monoclonal antibody Dx 3860

<220>

<221> exon

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Ser	Leu	Lys	Leu	Ser	Cys	Ala	Ala	Ser	Gly	Phe	Thr	Phe	Ser	Ser	Tyr	
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gcc	atg	tct	tgg	gtt	cgc	cag	act	cca	gag	aag	agg	ctg	gag	tgg	gtc	144
Ala	Met	Ser	Trp	Val	Arg	Gln	Thr	Pro	Glu	Lys	Arg	Leu	Glu	Trp	Val	
			35				40					45				
gca	tcc	ttt	agt	aat	ggt	ggt	atc	acc	tac	tat	cca	gac	agt	gtg	aag	192
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			50			55					60					
ggc	cga	ttc	acc	atc	tcc	aga	gat	aat	gcc	agg	aac	atc	ctg	tac	ctg	240
Gly	Arg	Phe	Thr	Ile	Ser	Arg	Asp	Asn	Ala	Arg	Asn	Ile	Leu	Tyr	Leu	
65					70				75					80		
caa	atg	acc	agt	ctg	agg	tct	gag	gac	acg	gcc	att	tat	tac	tgt	gca	288
Gln	Met	Thr	Ser	Leu	Arg	Ser	Glu	Asp	Thr	Ala	Ile	Tyr	Tyr	Cys	Ala	
				85					90					95		
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Arg	Gly	Tyr	Gly	Pro	Ala	Tyr	Trp	Gly	Gln	Gly	Thr	Leu	Val	Thr	Val	
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Ser	Ala															

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 Thr Val Thr Leu Thr Cys Arg Ser Ser Thr Gly Ala Val Thr Thr Leu  
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 Asn Tyr Ala Asn Trp Val Gln Glu Lys Pro Asp His Leu Phe Thr Gly  
 35 40 45  
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 Leu Ile Gly Asn Thr Asn Asn Arg Ala Pro Gly Val Pro Ala Arg Phe  
 50 55 60  
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 Ser Gly Ser Leu Ile Gly Asp Lys Ala Ala Leu Thr Ile Thr Gly Ala  
 65 70 75 80  
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 Gln Thr Glu Asp Glu Ala Ile Tyr Phe Cys Ala Leu Trp Tyr Ser Asn  
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 1 5 10 15  
 tct ctg tct ctc acc tgt tct gtc act ggc tac tcc atc acc agt ggc 96  
 Ser Leu Ser Leu Thr Cys Ser Val Thr Gly Tyr Ser Ile Thr Ser Gly  
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ttt tac tgg aac tgg atc cgg cag ttt cca gga aac aaa ctg gaa tgg	144
Phe Tyr Trp Asn Trp Ile Arg Gln Phe Pro Gly Asn Lys Leu Glu Trp	
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atg ggc tac ata agc tac gac ggt tac aat aat tac aac cca ttt ctc	192
Met Gly Tyr Ile Ser Tyr Asp Gly Tyr Asn Asn Tyr Asn Pro Phe Leu	
50 55 60	
aaa aat cga gtg tcc atc act cgt gac aca tct gag aac cag ttt ttc	240
Lys Asn Arg Val Ser Ile Thr Arg Asp Thr Ser Glu Asn Gln Phe Phe	
65 70 75 80	
ctg aag ttg cat tct gtg act act gag gac aca gct aca tat tac tgt	288
Leu Lys Leu His Ser Val Thr Thr Glu Asp Thr Ala Thr Tyr Tyr Cys	
85 90 95	
gta agt tac ggt agt cgg agg gga gtt acc tac tgg ggc caa ggc acc	336
Val Ser Tyr Gly Ser Arg Arg Gly Val Thr Tyr Trp Gly Gln Gly Thr	
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Thr Val Thr Leu Thr Cys Arg Ser Ser Thr Gly Ala Val Thr Thr Ser	
20 25 30	
aac tat gcc aac tgg gtc caa gaa aaa cca gat cat tta ttc act ggt	144
Asn Tyr Ala Asn Trp Val Gln Glu Lys Pro Asp His Leu Phe Thr Gly	
35 40 45	
cta ata ggt aat acc aac aac cga gct cca ggt gtt cct gcc aga ttc	192
Leu Ile Gly Asn Thr Asn Asn Arg Ala Pro Gly Val Pro Ala Arg Phe	
50 55 60	
tct ggc tcc ctg att gga gac aag gct gcc ctc acc atc aca ggg gca	240
Ser Gly Ser Leu Ile Gly Asp Lys Ala Ala Leu Thr Ile Thr Gly Ala	
65 70 75 80	
cag act gag gat gag gcg ata tat ttc tgt gct ctt tgg tac aac acc	288
Gln Thr Glu Asp Glu Ala Ile Tyr Phe Cys Ala Leu Trp Tyr Asn Thr	
85 90 95	
cat ttg gtg ttc ggt gga gga acc aga ctg act gtc cta ggc	330
His Leu Val Phe Gly Gly Gly Thr Arg Thr Val Leu Gly	
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<220>  
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<400> 5

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Ala Met Ser Trp Val Arg Gln Thr Pro Glu Lys Arg Leu Glu Trp Val  
 35 40 45

Ala Ser Phe Ser Asn Gly Gly Ile Thr Tyr Tyr Pro Asp Ser Val Lys  
 50 55 60

Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Arg Asn Ile Leu Tyr Leu  
 65 70 75 80

Gln Met Thr Ser Leu Arg Ser Glu Asp Thr Ala Ile Tyr Tyr Cys Ala  
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Arg Gly Tyr Gly Pro Ala Tyr Trp Gly Gln Gly Thr Leu Val Thr Val  
 100 105 110

Ser Ala

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 3860

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Thr Val Thr Leu Thr Cys Arg Ser Ser Thr Gly Ala Val Thr Thr Leu  
 20 25 30

Asn Tyr Ala Asn Trp Val Gln Glu Lys Pro Asp His Leu Phe Thr Gly  
 35 40 45

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Leu Ile Gly Asn Thr Asn Asn Arg Ala Pro Gly Val Pro Ala Arg Phe  
50 55 60

Ser Gly Ser Leu Ile Gly Asp Lys Ala Ala Leu Thr Ile Thr Gly Ala  
65 70 75 80

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Ser Leu Ser Leu Thr Cys Ser Val Thr Gly Tyr Ser Ile Thr Ser Gly  
20 25 30

Phe Tyr Trp Asn Trp Ile Arg Gln Phe Pro Gly Asn Lys Leu Glu Trp  
35 40 45

Met Gly Tyr Ile Ser Tyr Asp Gly Tyr Asn Asn Tyr Asn Pro Phe Leu  
50 55 60

Lys Asn Arg Val Ser Ile Thr Arg Asp Thr Ser Glu Asn Gln Phe Phe  
65 70 75 80

Leu Lys Leu His Ser Val Thr Thr Glu Asp Thr Ala Thr Tyr Tyr Cys  
85 90 95

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Thr Leu Thr Val Ser Ser  
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20 25 30

Asn Tyr Ala Asn Trp Val Gln Glu Lys Pro Asp His Leu Phe Thr Gly  
35 40 45

Leu Ile Gly Asn Thr Asn Asn Arg Ala Pro Gly Val Pro Ala Arg Phe  
50 55 60

Ser Gly Ser Leu Ile Gly Asp Lys Ala Ala Leu Thr Ile Thr Gly Ala  
65 70 75 80

Gln Thr Glu Asp Glu Ala Ile Tyr Phe Cys Ala Leu Trp Tyr Asn Thr  
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<223> Peptide of CDR 2 in H-chain variable region of monoclonal antibody Dx 3150

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36



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48

tcc ctg aaa ctc tcc tgt gca gcc tct gga ttc act ttc agt tcc tat  
 Ser Leu Lys Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr  
 20 25 30

96

gcc atg tct tgg gtt cgc cag act cca gag aag agg ctg gag tgg gtc  
 Ala Met Ser Trp Val Arg Gln Thr Pro Glu Lys Arg Leu Glu Trp Val  
 35 40 45

144

gca tcc ttt agt aat ggt ggt atc acc tac tat cca gac agt gtg aag  
 Ala Ser Phe Ser Asn Gly Gly Ile Thr Tyr Tyr Pro Asp Ser Val Lys  
 50 55 60

192

ggc cga ttc acc atc tcc aga gat aat gcc agg aac atc ctg tac ctg  
 Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Arg Asn Ile Leu Tyr Leu  
 65 70 75 80

240

caa atg acc agt ctg agg tct gag gac acg gcc att tat tac tgt gca  
 Gln Met Thr Ser Leu Arg Ser Glu Asp Thr Ala Ile Tyr Tyr Cys Ala  
 85 90 95

288

aga ggc tat ggt cct gct tac tgg ggc caa ggt acc ctg gtc act gtc  
 Arg Gly Tyr Gly Pro Ala Tyr Trp Gly Gln Gly Thr Leu Val Thr Val  
 100 105 110

336

tct tcc gga gga ggc ggt tca ggc gga ggt ggc tct ggc ggt ggc gga  
 Ser Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly  
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120 125

115	tcc cag gct gtt gtg act cag gaa tct gca ctc acc aca tca cct ggt Ser Gln Ala Val Val Thr Gln Glu Ser Ala Leu Thr Thr Ser Pro Gly 130 135 140	432
	gaa aca gtc aca ctc act tgt cgc tca agt act ggg gct gtt aca act Glu Thr Val Thr Leu Thr Cys Arg Ser Ser Thr Gly Ala Val Thr Thr 145 150 155 160	480
	ctt aac tat gcc aac tgg gtc caa gaa aaa cca gat cat tta ttc act Leu Asn Tyr Ala Asn Trp Val Gln Glu Lys Pro Asp His Leu Phe Thr 165 170 175	528
	ggg cta ata ggt aat acc aac aac cga gct cca ggt gtt cct gcc aga Gly Leu Ile Gly Asn Thr Asn Asn Arg Ala Pro Gly Val Pro Ala Arg 180 185 190	576
	ttc tca ggc tcc ctg att gga gac aag gct gcc ctc acc atc aca ggg Phe Ser Gly Ser Leu Ile Gly Asp Lys Ala Ala Leu Thr Ile Thr Gly 195 200 205	624
	gca cag act gag gat gag gca ata tat ttc tgt gct cta tgg tac agc Ala Gln Thr Glu Asp Glu Ala Ile Tyr Phe Cys Ala Leu Trp Tyr Ser 210 215 220	672
	aac cat ttg gtg ttc ggt gga gga acc aaa ctg act gtc cta ggc Asn His Leu Val Phe Gly Gly Gly Thr Lys Leu Thr Val Leu Gly 225 230 235	717
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	aca gtc aca ctc act tgt cgc tca agt act ggg gct gtt aca act ctt Thr Val Thr Leu Thr Cys Arg Ser Ser Thr Gly Ala Val Thr Thr Leu 20 25 30	96
	aac tat gcc aac tgg gtc caa gaa aaa cca gat cat tta ttc act ggt Asn Tyr Ala Asn Trp Val Gln Glu Lys Pro Asp His Leu Phe Thr Gly 35 40 45	144
	cta ata ggt aat acc aac aac cga gct cca ggt gtt cct gcc aga ttc Leu Ile Gly Asn Thr Asn Asn Arg Ala Pro Gly Val Pro Ala Arg Phe 50 55 60	192
	tca ggc tcc ctg att gga gac aag gct gcc ctc acc atc aca ggg gca Ser Gly Ser Leu Ile Gly Asp Lys Ala Ala Leu Thr Ile Thr Gly Ala 65 70 75 80	240
	cag act gag gat gag gca ata tat ttc tgt gct cta tgg tac agc aac Gln Thr Glu Asp Glu Ala Ile Tyr Phe Cys Ala Leu Trp Tyr Ser Asn 85 90 95	288



## SAWA3005 Test Listing.ST25

cat ttg gtg ttc ggt gga gga acc aaa ctg act gtc cta ggc tcc gga His Leu Val Phe Gly Gly Gly Thr Lys Leu Thr Val Leu Gly Ser Gly 100 105 110	336
gga ggc ggt tca ggc gga ggt ggc tct ggc ggt ggc gga tcc gaa gtg Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Ser Glu Val 115 120 125	384
aag ctg gtg gag tcc ggg gga ggc tta gtg aag cct gga ggg tcc ctg Lys Leu Val Glu Ser Gly Gly Gly Leu Val Lys Pro Gly Gly Ser Leu 130 135 140	432
aaa ctc tcc tgt gca gcc tct gga ttc act ttc agt tcc tat gcc atg Lys Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr Ala Met 145 150 155 160	480
tct tgg gtt cgc cag act cca gag aag agg ctg gag tgg gtc gca tcc Ser Trp Val Arg Gln Thr Pro Glu Lys Arg Leu Glu Trp Val Ala Ser 165 170 175	528
ttt agt aat ggt ggt atc acc tac tat cca gac agt gtg aag ggc cga Phe Ser Asn Gly Gly Ile Thr Tyr Tyr Pro Asp Ser Val Lys Gly Arg 180 185 190	576
ttc acc atc tcc aga gat aat gcc agg aac atc ctg tac ctg caa atg Phe Thr Ile Ser Arg Asp Asn Ala Arg Asn Ile Leu Tyr Leu Gln Met 195 200 205	624
acc agt ctg agg tct gag gac acg gcc att tat tac tgt gca aga ggc Thr Ser Leu Arg Ser Glu Asp Thr Ala Ile Tyr Tyr Cys Ala Arg Gly 210 215 220	672
tat ggt cct gct tac tgg ggc caa ggg act ctg gtc act gtc tct gca Tyr Gly Pro Ala Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ala 225 230 235 240	720
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tct ctg tct ctc acc tgt tct gtc act ggc tac tcc atc acc agt ggc Ser Leu Ser Leu Thr Cys Ser Val Thr Gly Tyr Ser Ile Thr Ser Gly 20 25 30	96
ttt tac tgg aac tgg att cgg cag ttt cca gga aac aaa ctg gaa tgg Phe Tyr Trp Asn Trp Ile Arg Gln Phe Pro Gly Asn Lys Leu Glu Trp 35 40 45	144
atg ggc tac ata agc tac gac ggt tac aat aat tac aac cca ttt ctc Met Gly Tyr Ile Ser Tyr Asp Gly Tyr Asn Asn Tyr Asn Pro Phe Leu 50 55 60	192

SAWA3005 Test Listing.ST25

aaa aat cga gtg tcc atc act cgt gac aca tct gag aac cag ttt ttc	240
Lys Asn Arg Val Ser Ile Thr Arg Asp Thr Ser Glu Asn Gln Phe Phe	
65 70 75 80	
ctg aag ttg cat tct gtg act act gag gac aca gct aca tat tac tgt	288
Leu Lys Leu His Ser Val Thr Thr Glu Asp Thr Ala Thr Tyr Tyr Cys	
85 90 95	
gta agt tac ggt agt cgg agg gga gtt acc tac tgg ggc caa ggt acc	336
Val Ser Tyr Gly Ser Arg Arg Gly Val Thr Tyr Trp Gly Gln Gly Thr	
100 105 110	
act ctc aca gtc tcc tcc gga gga ggc ggt tca ggc gga ggt ggc tct	384
Thr Leu Thr Val Ser Ser Gly Gly Gly Gly Ser Gly Gly Gly Ser	
115 120 125	
ggc ggt ggc gga tcc cag gct gtt gtg act cag gaa tct gca ctc acc	432
Gly Gly Gly Gly Ser Gln Ala Val Val Thr Gln Glu Ser Ala Leu Thr	
130 135 140	
aca tca cct ggt gaa aca gtc aca ctc act tgt cgc tca agt act ggg	480
Thr Ser Pro Gly Glu Thr Val Thr Leu Thr Cys Arg Ser Ser Thr Gly	
145 150 155 160	
gct gtt aca act agt aac tat gcc aac tgg gtc caa gaa aaa cca gat	528
Ala Val Thr Thr Ser Asn Tyr Ala Asn Trp Val Gln Glu Lys Pro Asp	
165 170 175	
cat tta ttc act ggt cta ata ggt aat acc aac aac cga gct cca ggt	576
His Leu Phe Thr Gly Leu Ile Gly Asn Thr Asn Asn Arg Ala Pro Gly	
180 185 190	
gtt cct gcc aga ttc tct ggc tcc ctg att gga gac aag gct gcc ctc	624
Val Pro Ala Arg Phe Ser Gly Ser Leu Ile Gly Asp Lys Ala Ala Leu	
195 200 205	
acc atc aca ggg gca cag act gag gat gag gcg ata tat ttc tgt gct	672
Thr Ile Thr Gly Ala Gln Thr Glu Asp Glu Ala Ile Tyr Phe Cys Ala	
210 215 220	
ctt tgg tac aac acc cat ttg gtg ttc ggt gga gga acc aga ctg act	720
Leu Trp Tyr Asn Thr His Leu Val Phe Gly Gly Gly Thr Arg Leu Thr	
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Val Leu Gly	

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Gln Ala Val Val Thr Gln Glu Ser Ala Leu Thr Thr Ser Pro Gly Glu	
1 5 10 15	

aca gtc aca ctc act tgt cgc tca agt act ggg gct gtt aca act agt	96
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SAWA3005 Test Listing.ST25

Thr	Val	Thr	Leu	Thr	Cys	Arg	Ser	Ser	Thr	Gly	Ala	Val	Thr	Thr	Ser	
			20					25							30	
aac	tat	gcc	aac	tgg	gtc	caa	gaa	aaa	cca	gat	cat	tta	ttc	act	ggt	144
Asn	Tyr	Ala	Asn	Trp	Val	Gln	Glu	Lys	Pro	Asp	His	Leu	Phe	Thr	Gly	
		35					40					45				
cta	ata	ggt	aat	acc	aac	aac	cga	gct	cca	ggt	gtt	cct	gcc	aga	ttc	192
Leu	Ile	Gly	Asn	Thr	Asn	Asn	Arg	Ala	Pro	Gly	Val	Pro	Ala	Arg	Phe	
		50				55					60					
tct	ggc	tcc	ctg	att	gga	gac	aag	gct	gcc	ctc	acc	atc	aca	ggg	gca	240
Ser	Gly	Ser	Leu	Ile	Gly	Asp	Lys	Ala	Ala	Leu	Thr	Ile	Thr	Gly	Ala	
65					70					75					80	
cag	act	gag	gat	gag	gcg	ata	tat	ttc	tgt	gct	ctt	tgg	tac	aac	acc	288
Gln	Thr	Glu	Asp	Glu	Ala	Ile	Tyr	Phe	Cys	Ala	Leu	Trp	Tyr	Asn	Thr	
				85					90					95		
cat	ttg	gtg	ttc	ggt	gga	gga	acc	aga	ctg	act	gtc	cta	ggc	tcc	gga	336
His	Leu	Val	Phe	Gly	Gly	Gly	Thr	Arg	Leu	Thr	Val	Leu	Gly	Ser	Gly	
			100					105					110			
gga	ggc	ggt	tca	ggc	gga	ggt	ggc	tct	ggc	ggt	ggc	gga	tcc	gat	gta	384
Gly	Gly	Gly	Ser	Gly	Gly	Gly	Gly	Ser	Gly	Gly	Gly	Gly	Ser	Asp	Val	
		115					120					125				
cag	ctt	cag	gag	tca	gga	cct	ggc	ctc	gtg	aaa	cct	tct	cag	tct	ctg	432
Gln	Leu	Gln	Glu	Ser	Gly	Pro	Gly	Leu	Val	Lys	Pro	Ser	Gln	Ser	Leu	
	130					135					140					
tct	ctc	acc	tgt	tct	gtc	act	ggc	tac	tcc	atc	acc	agt	ggc	ttt	tac	480
Ser	Leu	Thr	Cys	Ser	Val	Thr	Gly	Tyr	Ser	Ile	Thr	Ser	Gly	Phe	Tyr	
145					150					155					160	
tgg	aac	tgg	att	cgg	cag	ttt	cca	gga	aac	aaa	ctg	gaa	tgg	atg	ggc	528
Trp	Asn	Trp	Ile	Arg	Gln	Phe	Pro	Gly	Asn	Lys	Leu	Glu	Trp	Met	Gly	
				165					170					175		
tac	ata	agc	tac	gac	ggt	tac	aat	aat	tac	aac	cca	ttt	ctc	aaa	aat	576
Tyr	Ile	Ser	Tyr	Asp	Gly	Tyr	Asn	Asn	Tyr	Asn	Pro	Phe	Leu	Lys	Asn	
			180					185					190			
cga	gtg	tcc	atc	act	cgt	gac	aca	tct	gag	aac	cag	ttt	ttc	ctg	aag	624
Arg	Val	Ser	Ile	Thr	Arg	Asp	Thr	Ser	Glu	Asn	Gln	Phe	Phe	Leu	Lys	
		195					200					205				
ttg	cat	tct	gtg	act	act	gag	gac	aca	gct	aca	tat	tac	tgt	gta	agt	672
Leu	His	Ser	Val	Thr	Thr	Glu	Asp	Thr	Ala	Thr	Tyr	Tyr	Cys	Val	Ser	
	210					215					220					
tac	ggt	agt	cgg	agg	gga	gtt	acc	tac	tgg	ggc	caa	ggc	acc	act	ctc	720
Tyr	Gly	Ser	Arg	Arg	Gly	Val	Thr	Tyr	Trp	Gly	Gln	Gly	Thr	Thr	Leu	
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aca	gtc	tcc	tca													732
Thr	Val	Ser	Ser													

<210> 60  
 <211> 239  
 <212> PRT  
 <213> Unknown

<220>  
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SAWA3005 Test Listing.ST25

<400> 60

Glu Val Lys Leu Val Glu Ser Gly Gly Gly Leu Val Lys Pro Gly Gly  
1 5 10 15

Ser Leu Lys Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr  
20 25 30

Ala Met Ser Trp Val Arg Gln Thr Pro Glu Lys Arg Leu Glu Trp Val  
35 40 45

Ala Ser Phe Ser Asn Gly Gly Ile Thr Tyr Tyr Pro Asp Ser Val Lys  
50 55 60

Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Arg Asn Ile Leu Tyr Leu  
65 70 75 80

Gln Met Thr Ser Leu Arg Ser Glu Asp Thr Ala Ile Tyr Tyr Cys Ala  
85 90 95

Arg Gly Tyr Gly Pro Ala Tyr Trp Gly Gln Gly Thr Leu Val Thr Val  
100 105 110

Ser Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly  
115 120 125

Ser Gln Ala Val Val Thr Gln Glu Ser Ala Leu Thr Thr Ser Pro Gly  
130 135 140

Glu Thr Val Thr Leu Thr Cys Arg Ser Ser Thr Gly Ala Val Thr Thr  
145 150 155 160

Leu Asn Tyr Ala Asn Trp Val Gln Glu Lys Pro Asp His Leu Phe Thr  
165 170 175

Gly Leu Ile Gly Asn Thr Asn Asn Arg Ala Pro Gly Val Pro Ala Arg  
180 185 190

Phe Ser Gly Ser Leu Ile Gly Asp Lys Ala Ala Leu Thr Ile Thr Gly  
195 200 205

Ala Gln Thr Glu Asp Glu Ala Ile Tyr Phe Cys Ala Leu Trp Tyr Ser  
210 215 220

Asn His Leu Val Phe Gly Gly Gly Thr Lys Leu Thr Val Leu Gly  
225 230 235

<210> 61

<211> 240

<212> PRT

<213> Unknown

<220>

SAWA3005 Test Listing.ST25

<223> Polypeptide encoded by scFv fragment Dx3860LH

<400> 61

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20      25      30
Asn Tyr Ala Asn Trp Val Gln Glu Lys Pro Asp His Leu Phe Thr Gly
35      40      45
Leu Ile Gly Asn Thr Asn Asn Arg Ala Pro Gly Val Pro Ala Arg Phe
50      55      60
Ser Gly Ser Leu Ile Gly Asp Lys Ala Ala Leu Thr Ile Thr Gly Ala
65      70      75      80
Gln Thr Glu Asp Glu Ala Ile Tyr Phe Cys Ala Leu Trp Tyr Ser Asn
85      90      95
His Leu Val Phe Gly Gly Gly Thr Lys Leu Thr Val Leu Gly Ser Gly
100     105     110
Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Glu Val
115     120     125
Lys Leu Val Glu Ser Gly Gly Gly Leu Val Lys Pro Gly Gly Ser Leu
130     135     140
Lys Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr Ala Met
145     150     155     160
Ser Trp Val Arg Gln Thr Pro Glu Lys Arg Leu Glu Trp Val Ala Ser
165     170     175
Phe Ser Asn Gly Gly Ile Thr Tyr Tyr Pro Asp Ser Val Lys Gly Arg
180     185     190
Phe Thr Ile Ser Arg Asp Asn Ala Arg Asn Ile Leu Tyr Leu Gln Met
195     200     205
Thr Ser Leu Arg Ser Glu Asp Thr Ala Ile Tyr Tyr Cys Ala Arg Gly
210     215     220
Tyr Gly Pro Ala Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ala
225     230     235     240

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 <211> 243  
 <212> PRT  
 <213> Unknown

SAWA3005 Test Listing.ST25

<220>

<223> Polypeptide encoded by scFv fragment Dx3150HL

<400> 62

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Ser Leu Ser Leu Thr Cys Ser Val Thr Gly Tyr Ser Ile Thr Ser Gly  
20 25 30

Phe Tyr Trp Asn Trp Ile Arg Gln Phe Pro Gly Asn Lys Leu Glu Trp  
35 40 45

Met Gly Tyr Ile Ser Tyr Asp Gly Tyr Asn Asn Tyr Asn Pro Phe Leu  
50 55 60

Lys Asn Arg Val Ser Ile Thr Arg Asp Thr Ser Glu Asn Gln Phe Phe  
65 70 75 80

Leu Lys Leu His Ser Val Thr Thr Glu Asp Thr Ala Thr Tyr Tyr Cys  
85 90 95

Val Ser Tyr Gly Ser Arg Arg Gly Val Thr Tyr Trp Gly Gln Gly Thr  
100 105 110

Thr Leu Thr Val Ser Ser Gly Gly Gly Ser Gly Gly Gly Ser  
115 120 125

Gly Gly Gly Gly Ser Gln Ala Val Val Thr Gln Glu Ser Ala Leu Thr  
130 135 140

Thr Ser Pro Gly Glu Thr Val Thr Leu Thr Cys Arg Ser Ser Thr Gly  
145 150 155 160

Ala Val Thr Thr Ser Asn Tyr Ala Asn Trp Val Gln Glu Lys Pro Asp  
165 170 175

His Leu Phe Thr Gly Leu Ile Gly Asn Thr Asn Asn Arg Ala Pro Gly  
180 185 190

Val Pro Ala Arg Phe Ser Gly Ser Leu Ile Gly Asp Lys Ala Ala Leu  
195 200 205

Thr Ile Thr Gly Ala Gln Thr Glu Asp Glu Ala Ile Tyr Phe Cys Ala  
210 215 220

Leu Trp Tyr Asn Thr His Leu Val Phe Gly Gly Gly Thr Arg Leu Thr  
225 230 235 240

Val Leu Gly

SAWA3005 Test Listing.ST25

<210> 63  
 <211> 244  
 <212> PRT  
 <213> Unknown

<220>  
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 Thr Val Thr Leu Thr Cys Arg Ser Ser Thr Gly Ala Val Thr Thr Ser  
 20 25 30  
 Asn Tyr Ala Asn Trp Val Gln Glu Lys Pro Asp His Leu Phe Thr Gly  
 35 40 45  
 Leu Ile Gly Asn Thr Asn Asn Arg Ala Pro Gly Val Pro Ala Arg Phe  
 50 55 60  
 Ser Gly Ser Leu Ile Gly Asp Lys Ala Ala Leu Thr Ile Thr Gly Ala  
 65 70 75 80  
 Gln Thr Glu Asp Glu Ala Ile Tyr Phe Cys Ala Leu Trp Tyr Asn Thr  
 85 90 95  
 His Leu Val Phe Gly Gly Gly Thr Arg Leu Thr Val Leu Gly Ser Gly  
 100 105 110  
 Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Asp Val  
 115 120 125  
 Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Gln Ser Leu  
 130 135 140  
 Ser Leu Thr Cys Ser Val Thr Gly Tyr Ser Ile Thr Ser Gly Phe Tyr  
 145 150 155 160  
 Trp Asn Trp Ile Arg Gln Phe Pro Gly Asn Lys Leu Glu Trp Met Gly  
 165 170 175  
 Tyr Ile Ser Tyr Asp Gly Tyr Asn Asn Tyr Asn Pro Phe Leu Lys Asn  
 180 185 190  
 Arg Val Ser Ile Thr Arg Asp Thr Ser Glu Asn Gln Phe Phe Leu Lys  
 195 200 205  
 Leu His Ser Val Thr Thr Glu Asp Thr Ala Thr Tyr Tyr Cys Val Ser  
 210 215 220

SAWA3005 Test Listing.ST25

Tyr Gly Ser Arg Arg Gly Val Thr Tyr Trp Gly Gln Gly Thr Thr Leu  
225 230 235 240

Thr Val Ser Ser

<210> 64  
<211> 114  
<212> PRT  
<213> Unknown

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<223> Polypeptide of VH-chain variant (HL-M#5) of monoclonal antibody  
Dx 3860

<400> 64

Glu Val Lys Leu Val Glu Ser Gly Gly Gly Leu Val Lys Pro Gly Gly  
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Ser Leu Lys Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr  
20 25 30

Ala Met Ser Trp Val Arg Gln Thr Pro Glu Lys Arg Leu Glu Trp Val  
35 40 45

Ala Ser Ile Ser Asn Gly Gly Ile Thr Tyr Tyr Pro Asp Ser Val Lys  
50 55 60

Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Arg Asn Ile Leu Tyr Leu  
65 70 75 80

Gln Met Thr Ser Leu Arg Ser Glu Asp Thr Ala Ile Tyr Tyr Cys Ala  
85 90 95

Arg Gly Tyr Gly Pro Ala Tyr Trp Gly Gln Gly Thr Leu Val Thr Val  
100 105 110

Ser Ser

<210> 65  
<211> 114  
<212> PRT  
<213> Unknown

<220>  
<223> Polypeptide of VH-chain variant (LH-M#1) of monoclonal antibody  
Dx 3860

<400> 65

Glu Val Lys Leu Val Glu Ser Gly Gly Gly Leu Val Arg Pro Gly Gly  
1 5 10 15

Ser Leu Lys Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr  
20 25 30



SAWA3005 Test Listing.ST25

Ala Met Ser Trp Val Arg Gln Thr Pro Glu Lys Arg Leu Glu Trp Val  
35 40 45

Ala Ser Leu Ser Asn Gly Gly Ile Thr Tyr Tyr Pro Asp Ser Val Lys  
50 55 60

Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Arg Asn Ile Leu Tyr Leu  
65 70 75 80

Gln Met Thr Ser Leu Arg Ser Glu Asp Thr Ala Ile Tyr Tyr Cys Ala  
85 90 95

Arg Gly Tyr Gly Pro Ala Tyr Trp Gly Gln Gly Thr Leu Val Thr Val  
100 105 110

Ser Ala

<210> 66  
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<220>  
<223> Polypeptide of VH-chain variant (LH-M#2) of monoclonal antibody  
DX 3860

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Glu Val Lys Leu Val Glu Ser Gly Gly Gly Leu Val Lys Pro Gly Gly  
1 5 10 15

Ser Leu Lys Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr  
20 25 30

Ala Met Ser Trp Val Arg Gln Thr Pro Glu Lys Arg Leu Glu Trp Val  
35 40 45

Ala Ser Val Ser Asn Gly Gly Ile Thr Tyr Tyr Pro Asp Ser Val Lys  
50 55 60

Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Arg Asn Ile Leu Tyr Leu  
65 70 75 80

Gln Met Thr Ser Leu Arg Ser Glu Asp Thr Ala Ile Tyr Tyr Cys Ala  
85 90 95

Arg Gly Tyr Gly Pro Ala Tyr Trp Gly His Gly Thr Leu Val Thr Val  
100 105 110

Ser Ala

SAWA3005 Test Listing.ST25

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 Dx 3860

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Glu Val Lys Leu Val Glu Ser Gly Gly Gly Leu Val Lys Pro Gly Gly  
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Ser Leu Lys Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr  
 20 25 30

Ala Met Ser Trp Val Arg Gln Thr Pro Glu Lys Arg Leu Glu Trp Val  
 35 40 45

Ala Ser Leu Ser Asn Gly Gly Ile Thr Tyr Tyr Pro Asp Ser Val Lys  
 50 55 60

Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Arg Asn Val Leu Tyr Leu  
 65 70 75 80

Gln Met Thr Ser Leu Arg Ser Glu Asp Thr Ala Ile Tyr Tyr Cys Ala  
 85 90 95

Arg Gly Tyr Gly Pro Ala Tyr Trp Gly Gln Gly Thr Leu Val Thr Val  
 100 105 110

Ser Ala